SOIL MECHANICS AND FOUNDATION ENGINEERING

Volume 21, Numbers 1-6, 1984

(A translation of Osnovaniya, Fundamenty i Mekhanika Gruntov)

Volume 21, Number 1

January-February, 1984

	Engl./Russ.	
Soil Mechanics Problem in Undermined Areas - S. N. Klepikov and A. V. Mashkin	i	3
FROM THE EXPERIENCE OF CONSTRUCTION ORGANIZATIONS Analysis of Causes of Failure of Residential Buildings		
Constructed on Water-Saturated Clays — A. S. Stroganov Chimney Tilt Correction — Yu. F. Tugaenko, Yu. V. Matus,	6	8
and T. I. Stoyanova	11	10
of Jacked Piles - G. U. Babushkin and L. K. Ginzburg FOUNDATION ENGINEERING	14	12
Experimental Investigations of Driven Hollow Block Foundations	0.0	15
- V. B. Tropp	21	15
Hydraulicked Soils of Western Siberia as Beds for Structures		4
- P. A. Konovalov, N. S. Nikiforova, and S. Ya. Kushnir Computation of Depth of Multiyear Frost in Beds of Buildings	25	17
Constructed on Nonconfluent-Type Permafrost — L. N. Khrustalev and V. V. Nikiforov	30	20
Feasibility Study of Permafrost Thawing Regime by Electric Heaters	34	22
- E. S. Maksimenko	54	
Determination of Foundation Settlements with Allowance for Variation in Compression Modulus of Clayey Soil		
as Function of Stressed State - B. I. Dalmatov and V. M. Chikishev	37	24
Similarity of Solutions of the Theory of Limiting Equilibrium for Cohesive Soils — L. R. Stavnitser	42	27
Volume 21, Number 2 March-April, 1984		
Large-Scale Investigations of Engineering-Geologic Conditions of the Moscow Area — Yu. A. Dykhovichnyi	49	3
Toward Improvement of Engineering-Geologic Explorations - Yu. G. Trofimenkov, R. E. Khanin, G. M. Leshin,		
and I. A. Matyashevich	54	5
FROM THE EXPERIENCE OF CONSTRUCTION ORGANIZATIONS Experience Gained in Constructing an Industrial Complex on an Artificial Bed — V. B. Shvets, L. G. Lyubich, A. I. Alekseev, V. M. Gol'dshtein, B. M. Mazo,		
and S. G. Kushner	58	9
FOUNDATION ENGINEERING Determination of the Bearing Capacity of Piles Tamped		
into a Punched-Out Trench - A. L. Gotman and Ya. Sh. Ziyazov	63	12

	Engl./Russ.	
Behavior of Piles with Ribbed Surfaces in Sand Soils		
- P. A. Abbasov and A. A. Kovalevskii	69	15
CONSTRUCTION UNDER SPECIAL SOIL CONDITIONS Design of Pile Foundations in Type II Collapsibility Soils	76	10
- V. I. Krutov	76	18
SOIL MECHANICS Characteristic Features of the Anisotropy of Fractured Rock - V. P. Merzlyakov	83	24
Volume 21, Number 3 May-June, 1984		
CONSTRUCTION ON SLUMPING SOILS		
Experience with Chemical Stabilization of Soils in the Foundation Bed of Industrial and Residential Buildings in Volgodonsk		
- B. N. Isaev and B. N. Kuzin	91	2
to Slump-Type Settlement — B. M. Kovanev and P. G. Kurgan Method and Results of Testing Piles Tamped into Holes Drilled	97	5
in Soils Classed as Type II in Terms of Proneness to Slump-Type		
Settlement (In Order of Discussion) — V. I. Krutov, V. K. Kapustin, L. K. Ginzburg, V. E. Koval ¹ , V. L. Opershtein,		
and Yu. S. Gudakov	101	7
ECONOMICS OF MATERIAL AND ENERGY RESOURCES Driven Steel-Fiber-Reinforced-Concrete Pyramidal Piles		
- V. S. Sterin, V. A. Golubenkov, G. S. Rodov, B. V. Leikin, and L. G. Kurbatov	108	11
FOUNDATION ENGINEERING	100	11
Vibratory Embedment of Long Piles and Tubes and Their Extraction - M. G. Tseitlin and A. A. Kosheleva	112	13
CONSTRUCTION UNDER SPECIAL SOIL CONDITIONS Consideration of Variable Loads and Temperatures in Design		
of Foundations on Permafrost Soils - Yu. S. Mirenburg	118	16
CONSTRUCTIONAL PROPERTIES OF SOILS		
Method of Evaluation of Strength and Compressibility of Chip-and-Clay Soils - V. I. Fedorov	123	18
Resistance of Frozen Soils to Disintegration Under High-Pressure Hydraulic Jets — L. R. Petrosyan, M. R. Gokhman,		
and I. V. Rotaru	127	21
Analysis of Piping Settlement of Structures on Saline Soils Applying Centrifugal Modeling — A. A. Mustafaev		
and F. M. Ismailov	132	26
Volume 2l, Number 4 July-August, 1984		
FOOD SUPPLY PROGRAM AND PROTECTION OF THE ENVIRONMENT		
Experience with Collapsible Soil Consolidation by Preliminary Wetting in Rural Construction in Foothill Regions in Uzbekistan - V. I. Krutov, I. G. Rabinovich, V. K. Kogai, V. Ya. Naumov,		
and O. A. Shakhov	139	3
- A. I. Alekseev	144	6
ECONOMY OF MATERIAL AND ENERGY RESOURCES Chemical Stabilization of Loess Soils — V. E. Sokolovich,		
and V. V. Semkin	149	8
CONSTRUCTION ON COLLAPSIBLE SOILS Apalysis of Foundation Settlements in Temped Treashes V. I. V. C.		
Analysis of Foundation Settlements in Tamped Trenches Under Vertical and Horizontal Load Action — Yu. A. Bagdasarov	155	11

	Engl./Huss.	
FROM THE EXPERIENCE OF CONSTRUCTION ORGANIZATIONS Underpinning the Foundations of the Amusement Palace in the Moscow		
Additional Combined Deformations of Buildings and Foundations during	163	15
Construction in Highly Urbanized Areas — S. N. Sotnikov FOUNDATION ENGINEERING	168	17
Dynamic Interaction between High-Frequency Rotary Oil- and Gas- Transmission Units and Their Foundations — D. D. Barkan, P. P. Borodavkin, V. A. Il'ichev, and M. V. Chizhevskii	173	19
<pre>Interaction between Shallow Foundations and Slightly Heaving Bed Soil - V. S. Sazhin, V. V. Borshchev, and A. V. Sazhin</pre>	177	21
SOIL MECHANICS Solution of the Combined Axisymmetric Problem of the Theory of Elasticity and Plasticity by the Finite-Element method — A. B. Fadeev,		0.5
and A. L. Preger	181	25
Volume 21, Number 5 September-October, 1984		
FOOD SUPPLY PROGRAM AND PROTECTION OF THE ENVIRONMENT Construction Characteristics of Greenhouse Bases and Foundations on Permafrost Soils — V. K. Shchelokov, M. R. Gokhman, and V. V. Petrov	185	4
IMPROVING THE INDUSTRIALIZATION OF CONSTRUCTION Experience with and Prospects for Use of Jet Technology in Construction	203	
- V. D. Mosin	189	6
and S. G. Sukharev	193 196	10
FROM THE EXPERIENCE OF CONSTRUCTION ORGANIZATIONS Lowering the Water Table with Radial Drains - L. K. Ginzburg and V. B. Shvets	200	12
CONSTRUCTION ON COLLAPSIBLE SOILS Determination of Pile Settlement Under Type II Collapsibility Soil Conditions - V. A. Il'ichev, Yu. A. Bagdasarov, and V. M. Mamonov.	204	14
FOUNDATION ENGINEERING Investigation of Soil Deformation in Base of Large Plate - V. I. Golubkov, A. I. Događailo, and Yu. I. Dudenko	212	18
CONSTRUCTION UNDER SPECIAL SOIL CONDITIONS Determination of the Reliability Factor for Design of Permafrost Bases of Structures - L. N. Khrustalev and G. P. Pustovoit	216	21
CONSTRUCTION PROPERTIES OF SOILS Evaluation of Accuracy of Laboratory Compression Tests on Thawing Soils - V. D. Ponomarev	220	24
SOIL MECHANICS Viscoplastic Deformations of Coarse-Rubbly Soils Subject to Cyclic Effects - Yu. K. Zaretskii, B. D. Chumichev, and M. B. Granovskii.	223	26
Approximate Analytical Method for Computing the Stability of Foundation Beds - I. S. Ivanov	228	29
Volume 21, Number 6 November-December, 1984		
FOOD SUPPLY PROGRAM AND PROTECTION OF THE ENVIRONMENT		
Experience with Improved Foundations in Tamped Trenches for Farm Buildings in the Ukraine — V. G. Antonyuk and I. G. Rabinovich	233 237	7 9

The same and the s		
FROM THE EXPERIENCE OF CONSTRUCTION ORGANIZATIONS Tamped—Trench Foundation Construction in Leningrad — V. N. Svarovskii Pile Foundation Deformation during Residential Building Construction	243	12
under Frost Heave Action — É. V. Kosterin	247	15
FOUNDATION ENGINEERING		
Design of Foundation Slabs for Regions Prone to Sinkhole Formation on the Basis of the Probability-Cost Approach - V. I. Solomin		
and R. M. Karimov	252	17
Computation of Forces in Pyramidal Foundations - 0. B. Nisenboim	256	19
CONSTRUCTION UNDER SPECIAL SOIL CONDITIONS		
Combined Method for Electric Thawing of Permafrost Foundation Beds — E. S. Maksimenko	261	21
CONSTRUCTION PROPERTIES OF SOILS		
Strength of Gypsum—Clay Soils and Its Variation during the Leaching of Salts — V. P. Petrukhin and É. A. Arakelyan	264	23
SOIL MECHANICS		
Initial Critical Load on the Ground in the Case of a Circular Foundation — K. E. Egorov and T. I. Finaeva	269	26

Engl./Russ.